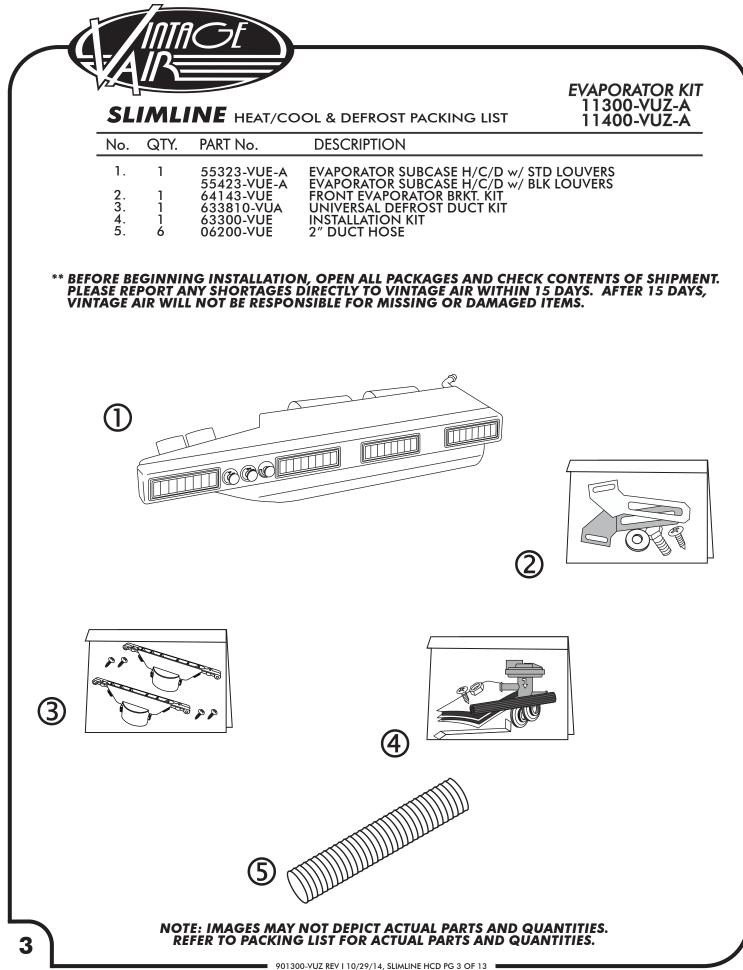




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IMPORTANT NOTICE-PLEASE READ

FOR MAXIMUM SYSTEM PERFORMANCE VINTAGE AIR RECOMMENDS THE FOLLOWING:

THIS KIT DOES NOT CONTAIN HEATER HOSE. YOU MUST PURCHASE 8 FEET OF 5/8" DIA. HEATER HOSE FROM VINTAGE AIR(31800-VUD) OR FROM YOU LOCAL PARTS RETAILER.

SAFETY SWITCHES:

A COMPRESSOR SAFETY SWITCH MUST BE INSTALLED ON EVERY A/C SYSTEM. A BINARY SWITCH DISENGAGES THE COMPRESSOR CLUTCH IN CASES OF EXTREME LOW PRESSURE (REFRIGERANT LOSS) OR EXCESSIVELY HIGH HEAD PRESSURE (406 PSI) TO PREVENT COMPRESSOR DAMAGE OR HOSE RUPTURE. A TRINARY SWITCH COMBINES HI/LO PRESSURE PROTECTION WITH AN ELECTRIC FAN OPERATION SIGNAL AT 254 PSI. COMPRESSOR SAFETY SWITCHES ARE EXTREMELY IMPORTANT SINCE AN A/C SYSTEM RELIES ON REFRIGERANT TO CARRY LUBRICATION THROUGH THE SYSTEM.

SERVICE INFO:

ATTENTION: SYSTEM COMPONENTS: THE COMPRESSOR, EVAPORATOR, CONDENSER & DRIER ARE CAPPED. CAPS MAY BE <u>UNDER PRESSURE WITH DRY NITROGEN</u>; BE CAREFUL REMOVING CAPS. DO NOT REMOVE CAPS PRIOR TO INSTALLATION. REMOVING CAPS PRIOR TO INSTALLATION WILL CAUSE COMPONENTS TO COLLECT MOISTURE AND LEAD TO PREMATURE FAILURE AND REDUCED PERFORMANCE.

EVACUATE THE SYSTEM FOR 35-45 MINUTES WITH SYSTEM COMPONENTS (DRIER, COMPRESSOR, EVAPORATOR AND CONDENSER) AT A TEMPERATURE OF AT LEAST 85° F. ON A COOL DAY THE COMPONENTS CAN BE HEATED WITH A HEAT GUN <u>OR</u> BY RUNNING THE ENGINE WITH THE HEATER ON BEFORE EVACUATING. LEAK CHECK AND CHARGE TO SPECIFICATIONS.

VINTAGE AIR SYSTEMS ARE DESIGNED TO OPERATE WITH R134a REFRIGERANT ONLY! <u>USE OF ANY OTHER REFRIGERANTS IS A FIRE HAZARD AND COULD</u> DAMAGE EITHER YOUR AIR CONDITIONING SYSTEM OR YOUR VEHICLE.

USE OF ANY OTHER REFRIGERANTS WILL VOID ALL WARRANTIES OF THE AIR CONDITIONING SYSTEM AND COMPONENTS. USE OF THE PROPER TYPE AND AMOUNT OF REFRIGERANT IS CRITICAL TO PROPER SYSTEM OPERATION. VINTAGE AIR RECOMMENDS OUR SYSTEMS BE CHARGED BY WEIGHT WITH A QUALITY CHARGING STATION OR SCALE.

REFRIGERANT CAPACITIES FOR VINTAGE AIR SYSTEMS

(FOR OTHER SYSTEMS, CONSULT MANUFACTURER GUIDELINES)

134a SYSTEM

CHARGE WITH 1.8 lbs. (1lbs. 12ozs) OF REFRIGERANT

LUBRICANT CAPACITIES: NEW COMPRESSOR - NO ADDITIONAL OIL NEEDED USED COMPRESSOR - CONSULT VINTAGE AIR



EVERY VEHICLE IS A LITTLE DIFFERENT, DEPENDING ON THE:

- 1. TYPE OF VEHICLE/ENGINE AND LOCATION OF ENGINE. 2. TYPE OF AIR CONDITIONING EQUIPMENT USED.
- 3. OWNER'S PREFERENCES.

THERE ARE MANY FACTORS THAT GO INTO MAKING EACH AIR CONDITIONING INSTALLATION DIFFERENT. USUALLY, ALL OF THE ABOVE DECISIONS ARE MADE BEFORE ANY CONSIDERATION IS GIVEN TO THE AIR CONDITIONING INSTALLATION. THE A/C SYSTEM IS THEN TAILORED TO FIT YOUR PARTICULAR APPLICATION.

THE MOUNTING LOCATION OF THE EVAPORATOR UNIT IS DETERMINED IN PART BY THE SPACE AVAILABLE FOR THE HOSE ROUTING. THE EVAPORATOR UNIT IS DETERMINED IN PART BY THE SPACE AVAILABLE FOR THE HOSE ROUTING. THE COMPONENTS USED IN THE HOSE ROUTING PROCESS (I.E. BULKHEAD PLATES, FITTINGS, AND GROMMETS, ETC.) WILL ALSO INFLUENCE THE LOCATION OF THE EVAPORATOR UNIT. WHEN PLANNING YOUR HOSE ROUTING, YOU MUST INSTALL THE MAJOR COMPONENT PARTS. MOUNT THE COMPRESSOR, CONDENSER AND DRIER. THE EVAPORATOR MUST BE TEMPORARILY HELD IN POSITION UNDER THE DASH. FINAL MOUNTING OF THE EVAPORATOR TO THE FIREWALL SHOULD NOT BE DONE, UNTIL YOU HAVE VERIFIED THAT ALL HOSES ATTACHING TO THE EVAPORATOR WILL EXIT THE FIREWALL AND/OR KICK PANEL AS PLANNED. THE HOSES MUST BE RUN EXACTLY THE WAY THEY WILL BE WHEN FINISHED, BEFORE CUTTING THEM TO LENGTH.

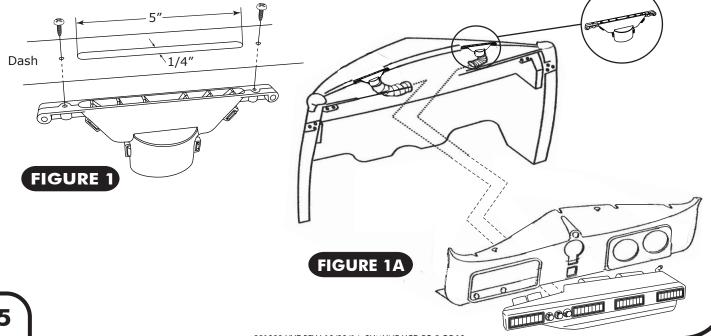
DUCT HOSE ROUTING AND A/C VENT LOCATIONS SHOULD ALSO BE GIVEN CAREFUL CONSIDERATION BEFORE FINAL MOUNTING POSITION OF THE EVAPORATOR IS SELECTED.

THE VINTAGE AIR SLIMLINE UNIT WAS DESIGNED FOR STREET RODS, CUSTOM CARS, AND TRUCKS. THE EVAPORATOR UNIT IS DESIGNED TO MOUNT BEHIND THE DASH.

READ THE INSTALLATION INSTRUCTIONS COMPLETELY, AND FAMILIARIZE YOURSELF WITH ALL THE PARTS AND ILLUSTRATIONS.

THE INSTALLATION OF THIS UNIT VARIES, ACCORDING TO THE BODY MANUFACTURER OR MODIFICATIONS TO THE ORIGINAL BODY. THE COWL VENT MAY REMAIN OPERATIONAL. TAKE YOUR TIME, AND DOUBLE CHECK BEFORE DRILLING OR CUTTING.

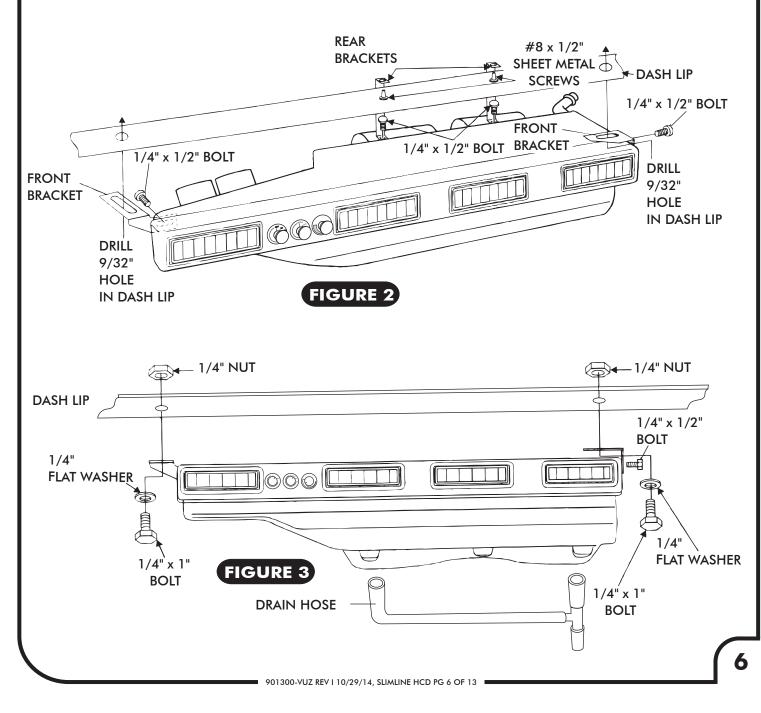
BEFORE BEGINNING, REMOVE COWL VENT HANDLE AND GLOVE BOX TO EASE INSTALLATION. IF THE DASH IS EASILY REMOVABLE, REMOVE IT NOW. CHECK FOR, AND FILL IN ANY HOLES IN THE FIREWALL AND FLOOR. INSULATE AND SEAL FIREWALL, FLOOR, DOOR PANELS, AND HEADLINER TO REDUCE THE AMOUNT OF HEAT ENTERING THE CAR. FIGURES 1 AND 1A SHOW THE GENERAL LOCATION OF THE DEFROST DUCTS. LOCATIONS WILL VARY. IF YOUR UNIT IS EQUIPPED WITH THE DEFROST OPTION, INSTALL THE DUCTS NOW.





INSTALLATION

- □ ATTACH EVAPORATOR BRACKETS TO EVAPORATOR (SEE FIGURE 2).
- DIAMETER HOLES UNDER THE LIP OF THE DASH. MARK AND DRILL TWO (2) 9/32"
- □ ATTACH THE FRONT BRACKETS TO THE DASH WITH 1/4" x 1" BOLTS, WASHERS AND NUTS PROVIDED (SEE FIGURE 2).
- □ ÀTTACH REAR ÉVAPORATOR BRACKETS (USING TWO #8 x 1/2" SHEET METAL SCREWS) TO THE COWL OR FIREWALL.
- □ ATTACH THE DRAIN HOSE (SEE FIGURE 3) AND DRILL A 9/16" DIAMETER HOLE IN FIREWALL 1" BELOW THE BOTTOM OF THE EVAPORATOR.



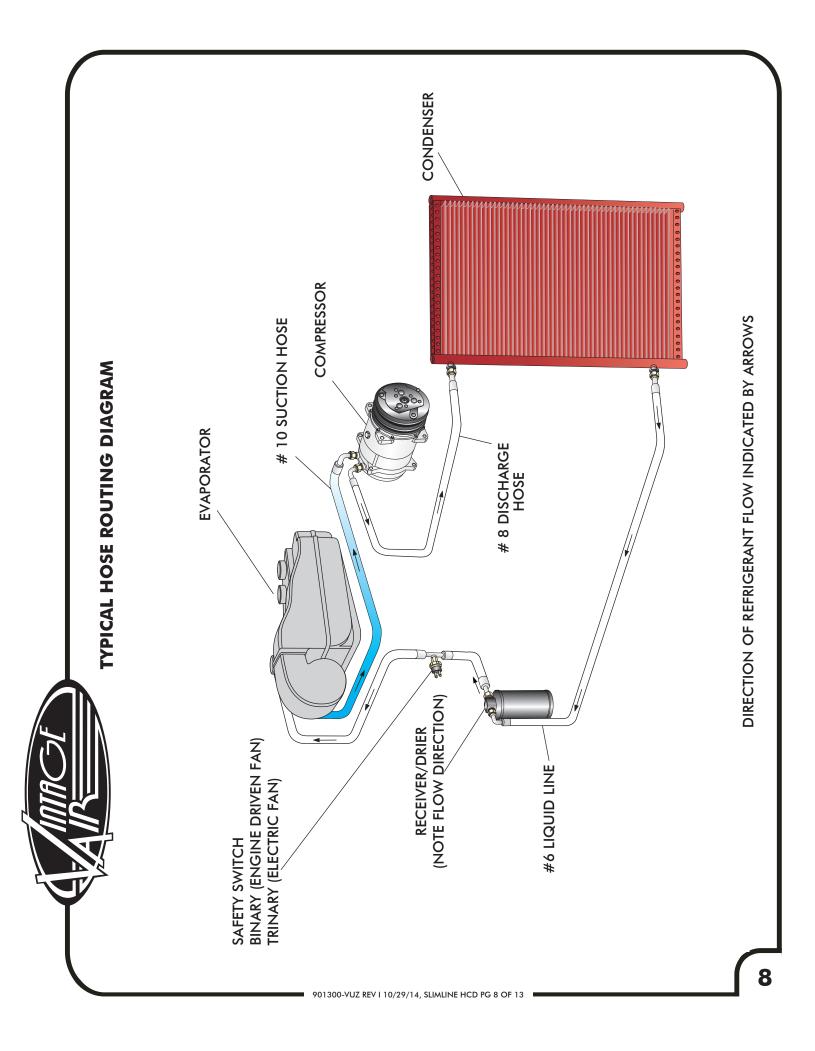


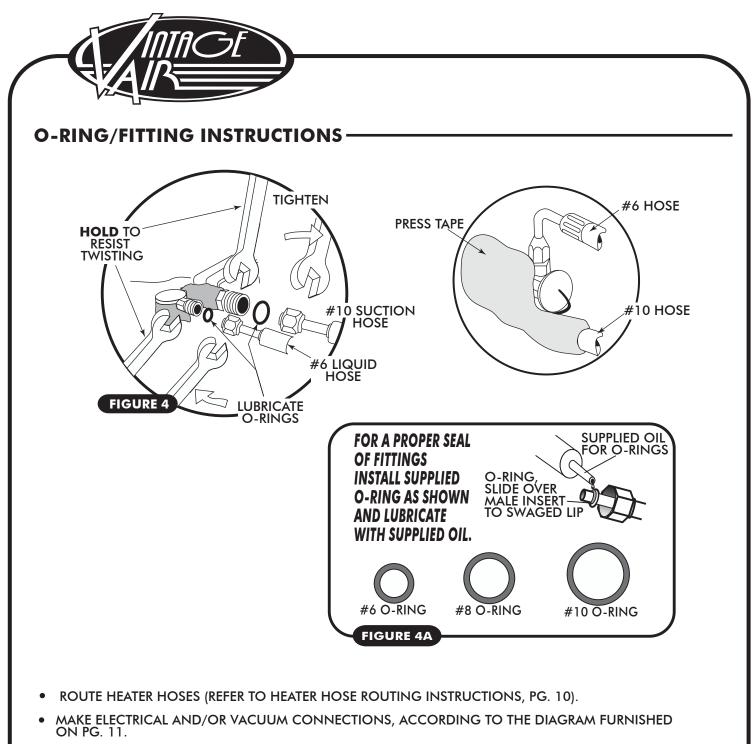
INSTALLATION CONTINUED

- PUSH THE 5/16" I.D. HOSE ONTO THE STRAIGHT #6 FITTING. (SEE HOSE ROUTING ILLUSTRATION ON PG. 8). INSTALL THE FITTING ONTO THE EXPANSION VALVE (FINGER TIGHT). PUSH THE 1/2" I.D. HOSE ONTO THE STRAIGHT #10 FITTING, AND INSTALL THE FITTING ONTO THE #10 LINE ON THE EVAPORATOR. (SEE HOSE ROUTING ILLUSTRATION PG. 8).
- AT THIS TIME, TRY TO DETERMINE WHERE YOU WANT YOUR LINES TO GO THRU THE FIREWALL. MOVE THE HOSES TO THAT POINT. HOLD THE FITTINGS UP TO THEIR RESPECTIVE HOSES, AND DETERMINE IF THE HOSES WILL CONFORM TO THE LOCATION FOR THE BULKHEAD FITTINGS OR OPTIONAL BULK-HEAD PLATE (VINTAGE AIR PART #34215-VUQ OR 34217-VUQ). THE 1/2" HOSE IS HARD TO BEND AT A SHARP ANGLE, AND THE FITTINGS TAKE UP A CERTAIN AMOUNT OF SPACE. **BEFORE YOU DRILL HOLES IN YOUR** FIREWALL, MAKE SURE THAT YOU CAN MAKE THE HOSES FIT WHERE YOU HAVE PLANNED. THE ENGINE COMPARTMENT APPEARANCE IS A CONSIDERATION WHEN CHOOSING THIS LOCATION.
- WHEN YOU HAVE DECIDED WHERE YOU WANT TO PLACE YOUR BULKHEAD FITTINGS, MARK THESE POINTS WITH A GREASE PENCIL, AND MAKE A TEMPLATE FROM THE INSIDE LOCATING WHERE THE HOLES WILL BE CUT. WITH THIS TEMPLATE, LOCATE THE SAME POINTS ON THE OUTSIDE OF THE FIREWALL. MARK THESE POINTS WITH A GREASE PENCIL.
- DETERMINE THE BEST LOCATION FOR THE DRIER THAT WILL ALLOW ADEQUATE ROOM FOR THE HOSE AND FITTINGS THAT CONNECT THE DRIER TO THE BULKHEAD FITTING.
- MOUNT THE DRIER. (KEEP THE DRIER CAPPED AS MUCH AS POSSIBLE. IF YOU MUST SCREW THE FITTING TO THE DRIER, TAPE IT CLOSED).

THE DRIER IS USUALLY MOUNTED WHERE YOU HAVE ROOM FOR IT. JUST REMEMBER TO MOUNT IT IN THE COOLEST SPOT POSSIBLE AND VERTICALLY SO THE SIGHT GLASS IS DIRECTLY ON TOP. (NOT NEXT TO THE EXHAUST MANIFOLD). IT CAN BE MOUNTED INSIDE THE VEHICLE AS WELL.

- AT THIS POINT, CUT HOLES FOR BULKHEAD FITTINGS, AND INSTALL THEM.USING THE HOSE ROUTING ILLUSTRATION AS A GUIDE, ROUTE REMAINING A/C LINES, AND CUT TO LENGTH.
- AT THIS TIME, YOU SHOULD HAVE THE REFRIGERATION HOSES CUT TO THEIR PROPER LENGTH. **PAY CLOSE ATTENTION TO THE ORIENTATION OF ANY HOSE WITH TWO ANGLED FITTINGS.** ANY HOSE WITH TWO ANGLED FITTINGS MUST BE MARKED FROM THE HOSE TO THE FITTINGS TO ASSURE THEY WILL REMAIN IN THE POSITION AFTER CRIMPING. THE RUBBER HOSE IS ONLY CAPABLE OF A <u>MINIMAL</u> AMOUNT OF TWIST TO AID ALIGNMENT.
- REMOVE HOSES AND CRIMP ENDS. IF YOU DO NOT HAVE ACCESS TO THE PROPER EQUIPMENT, VINTAGE AIR RECOMMENDS TAKING THEM TO A QUALIFIED A/C SERVICE CENTER FOR CRIMPING. (SEE CRIMPING INSTRUCTIONS SUPPLIED WITH THE HOSE KIT).
- WITH THE EVAPORATOR TRIAL FIT COMPLETE, REMOVE THE UNIT AND LOWER INTO THE VEHICLE.
- AFTER CRIMPING HOSES, LOCATE THE #6 A/C HOSE WITH THE STRAIGHT FITTING. LUBRICATE A #6 A/C O-RING AND THE THREADS ON THE FITTING AND INSTALL ON THE EXPANSION VALVE. TIGHTEN CAREFULLY. REFER TO FIGURES 4 & 4A, PAGE 9.
- LOCATE THE #10 A/C HOSE WITH THE STRAIGHT FITTING. LUBRICATE A #10 O-RING AND THE THREADS ON THE FITTING, AND INSTALL ON THE #10 LINE OF THE EVAPORATOR. TIGHTEN CAREFULLY. REFER TO FIGURES 4 & 4A, PAGE 9.
- WRAP THE #10 FITTING WITH PRESS TAPE, AND COVER ALL EXPOSED METAL SURFACES. (DO NOT WRAP THE #6 HOSE, FITTING, OR THE HEATER CORE TUBES). SEE FIGURE 4, PAGE 9.





 NOTE: THE RED 12GA. WIRE WITH THE 30 AMP CIRCUIT BREAKER SHOULD BE CONNECTED TO A 12 VOLT POWER SOURCE OF AT LEAST 12GA. WIRE. CONNECT MOLDED PLUG WITH THE (RED, YELLOW, ORANGE) WIRES TO THE CORRESPONDING PLUG FROM THE BLOWER MOTOR. THE SINGLE BLACK WIRE FROM THE BLOWER MOTOR MUST BE GROUNDED. THE BLUE CLUTCH WIRE RUNS FROM THE THERMOSTAT TO THE COMPRESSOR SAFETY SWITCH AND FROM THE SAFETY SWITCH TO THE COMPRESSOR.

BE CAREFUL TO ENSURE THAT THIS WIRE IS NOT PINCHED OR IN A POSITION TO RUB ON A SHARP EDGE AS IT GOES THRU THE FIREWALL. AN OPTIONAL VACUUM RESERVOIR WITH CHECK VALVE WILL HELP SYSTEM WORK UNDER A VARIETY OF CONDITIONS. (VINTAGE AIR PART #31200-VUS VACUUM RESERVOIR).

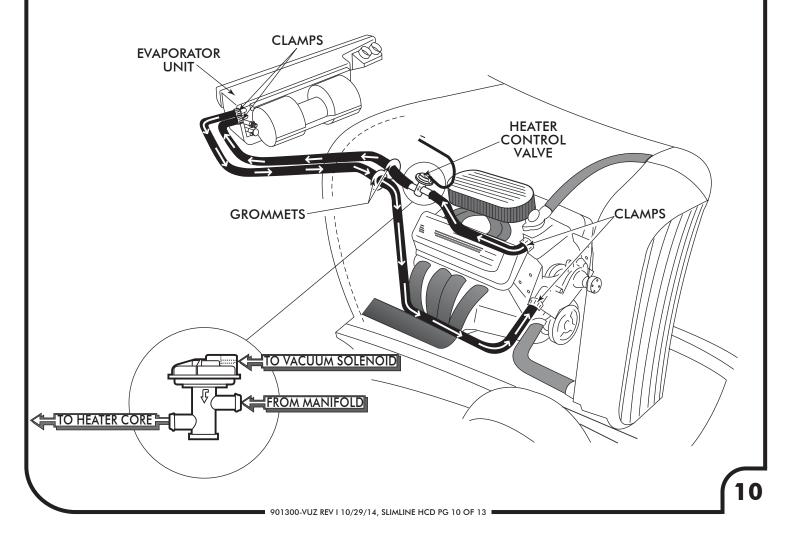


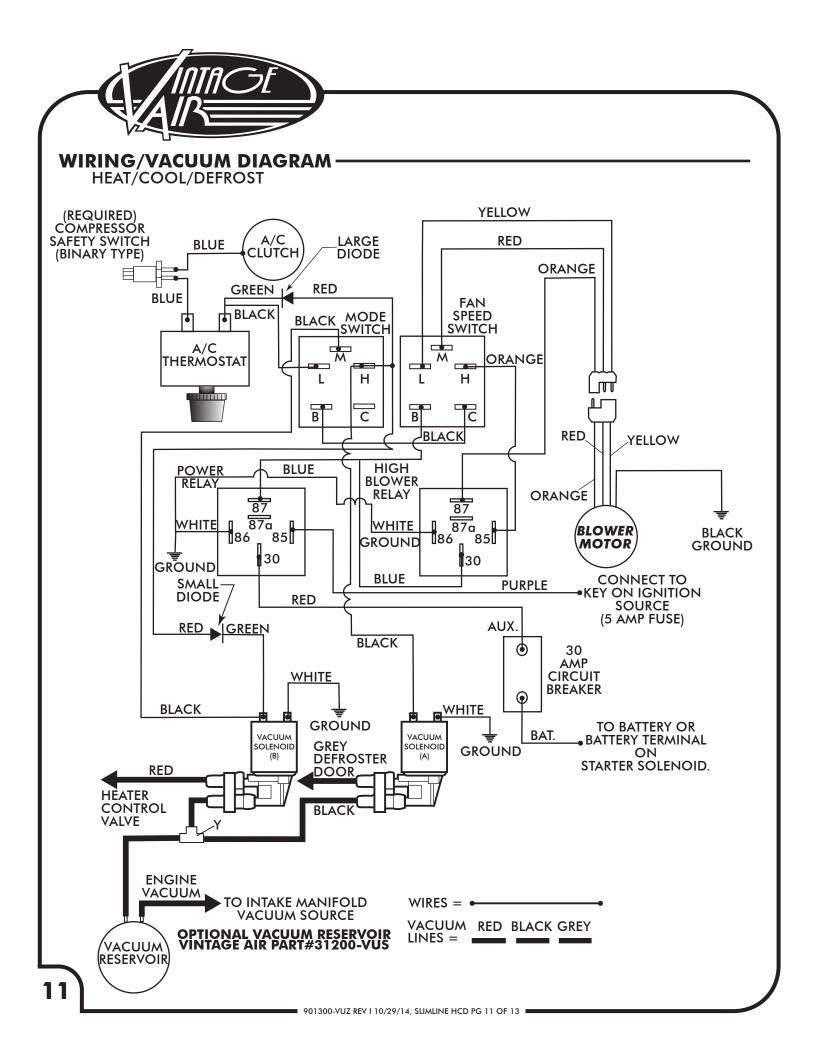
HEATER HOSE INSTALLATION-

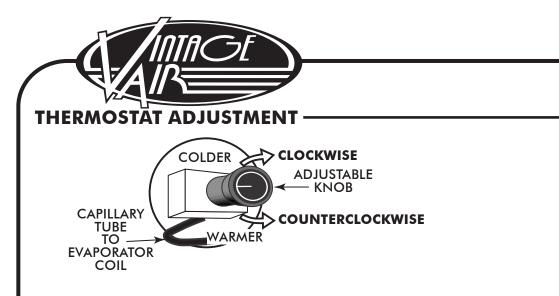
- •AFTER THE EVAPORATOR IS IN PLACE, RUN 5/8" HEATER HOSE FROM THE BOTTOM HEATER FITTING ON THE EVAPORATOR THRU THE FIREWALL OR BEHIND THE KICK PANEL THRU FLOOR TO THE INTAKE MANIFOLD HEATER CONNECTION. INSTALL THE VACUUM HEATER CONTROL VALVE IN THIS LINE. (PRESSURE) SEE FIGURE BELOW. (BE SURE TO FOLLOW FLOW ARROW ON HEATER CONTROL VALVE)
- •INSTALL 5/8" HEATER HOSE ON TOP FITTING OF HEATER. ROUTE HOSE THRU FIREWALL OR BEHIND KICK PANEL THRU FLOORBOARD AND OUT TO WATER PUMP CONNECTION. (SUCTION)

FILL RADIATOR WITH AT LEAST A 50/50 MIXTURE OF APPROVED ANTIFREEZE AND DISTILLED WATER. IT IS THE OWNER'S RESPONSIBILITY TO KEEP THE FREEZE PROTECTION AT THE PROPER LEVEL FOR THE CLIMATE IN WHICH THE VEHICLE IS OPERATING. FAILURE TO FOLLOW ANTIFREEZE RECOMMENDATIONS WILL CAUSE HEATER CORE TO CORRODE PREMATURELY AND POSSIBLY BURST IN THE A/C MODE AND/OR FREEZING WEATHER, VOIDING YOUR WARRANTY. CHECK COMPLETE A/C ASSEMBLY FOR PROPER OPERATION. VINTAGE AIR RECOMMENDS THAT ALL A/C SYSTEMS BE SERVICED BY A CERTIFIED AUTOMOTIVE AIR CONDITIONING TECHNICIAN ONLY. SEE INSIDE COVER FOR SERVICE INFORMATION.

- •START ENGINE AND RUN, UNTIL NORMAL OPERATING TEMPERATURE IS REACHED. PLACE SWITCH IN HEAT POSITION, AND SELECT FAN SPEED DESIRED. THE SYSTEM WILL HEAT THE VEHICLE. (BE SURE THE ENGINE THERMOSTAT HAS OPENED, AND THE APPROVED ANTIFREEZE MIXTURE HAS BEEN CIRCULATED THRU THE HEATER CORE BEFORE TESTING THE A/C MODES).
- •WHEN VALVE IS CLOSED, INLET SIDE OF VALVE SHOULD BE HOT AND OUTLET SIDE SHOULD BE COOL. WHEN THE VALVE IS OPEN, BOTH INLET AND OUTLET SIDES SHOULD BE HOT.







AIR CONDITIONING ADJUSTMENTS:

- THE AIR CONDITIONER THERMOSTAT CONTROLS COIL TEMPERATURE. THERMOSTATS ARE SHIPPED ADJUSTED FULLY COLD (CLOCKWISE), AND IN THE MAJORITY OF CASES, THE A/C WILL OPERATE CORRECTLY AS SHIPPED.
- TURNING THE KNOB TO THE RIGHT (CLOCKWISE) MAKES THE SYSTEM OPERATE COLDER. IF THE THERMOSTAT IS SET TOO COLD THE EVAPORATOR COIL WILL "ICE UP," MEANING THE EVAPORATOR COIL IS RESTRICTED WITH ICE, AND <u>COLD AIR FLOW WILL BE REDUCED.</u>
- TURNING THE KNOB TO THE LEFT (COUNTERCLOCKWISE) MAKES THE SYSTEM OPERATE WARMER. THE COMPRESSOR CLUTCH WILL CYCLE OFF FREQUENTLY. THE EVAPORATOR COIL WILL NOT GET AS COLD, AND THE AIR TEMPERATURE WILL NOT BE AS COLD.

ADJUSTING A/C THERMOSTAT:

- 1.) **SYMPTOM:** THE A/C WORKS WELL AT FIRST THEN QUITS COOLING. THE AIRFLOW FROM THE VENTS IS LOW, AND THE COMPRESSOR CLUTCH CYCLES INFREQUENTLY. **SOLUTION:** THE THERMOSTAT IS SET TOO COLD AND THE EVAPORATOR IS "ICING UP" AND RESTRICTING AIRFLOW. **ALLOW THE ICE TO MELT** AND SET THE THERMOSTAT WARMER (COUNTERCLOCKWISE) 1/8 OF A TURN EACH ADJUSTMENT UNITL THE SYMPTOMS DIMINISH.
- 2.) **SYMPTOM:** A/C NEVER GETS COLD AND THE COMPRESSOR CLUTCH CYCLES FREQUENTLY. **SOLUTION:** THE THERMOSTAT IS TOO WARM. SET THE THERMOSTAT COLDER (CLOCKWISE) 1/8 OF A TURN EACH ADJUSTMENT, UNTIL THE DESIRED AIR TEMPERATURE IS REACHED. **AVOID SETTING THE THERMOSTAT TOO COLD.**
- 3.) SYMPTOM: THE A/C NEVER GETS COLD, SOMETIMES EVEN BLOWS HOT, AND THE A/C COMPRESSOR CLUTCH INFREQUENTLY CYCLES OFF. SOLUTION: THE HEATER MAY BE ON AT ALL TIMES. CAREFULLY FEEL THE HEATER HOSE BETWEEN THE EVAPORATOR AND THE HEATER CONTROL VALVE. THIS HOSE SHOULD NOT BE HOT IN THE A/C MODE. IF THE HOSES ARE HOT....
 - A)- THE HEATER CONTROL VALVE MAY BE INSTALLED BACKWARDS. CHECK THE FLOW DIRECTION ARROW ON THE VALVE AGAINST THE ILLUSTRATION IN YOUR INSTALLATION INSTRUCTIONS.
 - B)- IF CABLE OPERATED: THE VALVE MAY BE MISADJUSTED.
 - C)- IF VACUUM OPERATED: IT MAY BE GETTING VACUUM AT ALL TIMES (CHECK ELECTRIC SOLENOID).
 - D)- THE HEATER CONTROL VALVE MAY BE INSTALLED IN THE WRONG HOSE. IT MUST BE INSTALLED IN THE HOSE COMING FROM THE INTAKE MANIFOLD ENGINE COOLANT **PRESSURE PORT.**

